1. A method for encoding data within a communication system, the method comprising the steps of:

     receiving a data rate; and

     setting an initial state of a convolutional encoder based on the data rate.

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2. The method of claim 1 wherein the step of receiving the data rate comprises the step of receiving a data rate from the group consisting of full, ½, ¼, and $1/8^{th}$ rate.

10   3. The method of claim 1 wherein the step of setting the initial state of the convolutional encoder based on the data rate comprises the step of setting an initial state of the encoder that is different for all possible data rates.

    4. The method of claim 1 further comprising the step of encoding data with the
15   convolutional encoder based on the data rate.

5. A method for decoding data within a communication system, the method comprising the steps of:
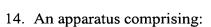
    receiving data;

    setting an initial state of a Trellis diagram based on a data rate; and

5   utilizing the Trellis diagram to decode the data.

6. The method of claim 5 further comprising the step of setting a final state of the Trellis diagram based on the data rate.

10   7. The method of claim 5 wherein the step of receiving the data comprises the ·step of receiving data having a frame rate from the group consisting of full, ½, ¼, and $1/8^{th}$ rate.

8. The method of claim 5 wherein the step of setting the initial state of the Trellis
15 diagram based on the data rate comprises the step of setting an initial state of the Trellis diagram that is different for all possible data rates.

9. The method of claim 5 further comprising the step of passing decoding characteristics to a Rate Determining Algorithm (RDA).

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10. A convolutional encoder comprising:

a controller having a rate as an input and outputting an initial state of the encoder based on the rate.

5   11. The convolutional encoder of claim 10 wherein the rate is a frame rate.

12. The encoder of claim 11 wherein the frame rate is a frame rate from the group consisting of Full, ½, ¼, and 1/8th rate frames.

10   13. The encoder of claim 12 wherein the initial state is different for all possible rates.

14. An apparatus comprising:

     means for decoding input data utilizing a Trellis diagram having an initial and a final state based on a transmission rate.

5   15. The apparatus of claim 14 wherein the transmission rate is a frame rate.

16. The apparatus of claim 15 wherein the frame rate is a frame rate from the group consisting of Full, ½, ¼, and $1/8^{th}$ rate frames.

10   17. The apparatus of claim 16 wherein the initial state is different for all possible rates.